



Lt. Kernal

The Ultimate Hard Disk System
for the Commodore 64® & 128®

NOTICE NOTICE NOTICE NOTICE

THIS LT. KERNEL HAS BEEN SHIPPED WITHOUT A SYSGEN DISK.

THE SYSGEN DISK WILL BE SENT TO YOU AT NO CHARGE WHEN WE RECEIVE YOUR REGISTRATION CARD. FILL OUT THE REGISTRATION CARD AND BE SURE YOUR SERIAL NUMBER IS INCLUDED. THIS IS A NUMBER THAT STARTS WITH 87000 FOUND ON THE BACK OF YOUR DRIVE AND HOST ADAPTOR

YOUR LT. KERNEL ALREADY HAS THE DOS INSTALLED ON THE DRIVE. THE SYSGEN DISK IS ONLY FOR BACK-UP PURPOSES.

NEVER DO A SYSGEN ON A WORKING DRIVE.

128 Lt. Kernal packing checklist

| QTY | Part Description | Xetec ✓ | Cust. ✓ |
|-----|--|---------|---------|
| 1 | Lt. Kernel Drive Assembly | ✓ | |
| 1 | Host Adaptor Assembly | ✓ | |
| 1 | Hiram/CAEC cable kit | ✓ | |
| 1 | 25 Pin cable | ✓ | |
| 1 | Line cord | ✓ | |
| 1 | Lt. Kernel Manual with Album | ✓ | |
| 1 | Lt. Kernel Sygen Disk (inside manual) | | |
| 1 | 128 Adaptor board | ✓ | |
| 1 | Commodore Serial cable | ✓ | |

Packed/Checked by: DF

Customer,

Please use this checklist to insure that your Lt. Kernel Disk Drive System contains all the required components.

Xetec, Inc. 2804 Arnold Rd. Salina, KS. 67401 (913) 827-0685



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Telex 510-601-2914 Fax 913-827-6023

**Lt. Kernal Network
Procedures**

Power-up Procedure:

- 1) Turn on power to drive(s) and multiplexer(s) simultaneously.
- 2) Once drive is up to speed, turn on power to ALL computers simultaneously.

After you are up and running:

DO NOT - reset, remove power from, or apply power to, any computer or multiplexer while the Lt. Kernal Hard drive is being accessed.

DO NOT - attempt to write a file while it is being read from a different computer and visa-versa. Writing the same file on more than one computer will be fatal to your LU. You can read the same file (or have it open for reading) from multi-computers.



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Lt. Kernal Network Procedures

Connecting Everything Up

- 1) Connect the 25 pin data cable from the drive to the connector marked DRIVE INPUT (Multiplexer Input) on the Multiplexer.
- 2) Take another 25 pin data cable and connect the Host Adaptor of the main computer system to the connector labeled MASTER (Slave 1) on the Multiplexer.
- 3) Repeat step 2 for any other systems that you want connected to the Lt. Kernal drive, connecting the data cables from the other Host Adaptors to the Multiplexer ports Slave 2, Slave 3 and Slave 4, respectively.
- 4) If you are connecting more than four computers to the drive, using additional Multiplexers, daisy-chain the Multiplexers together. Daisy-chain the multiplexers together by going from the Multiplexer Output of the first muxer to the Multiplexer Input of the second muxer, and so on. Connect the additional computers to the system, as described in step 2.

Power-up Procedure

- 1) Turn on power to the drive(s) and multiplexer(s) simultaneously.
- 2) Once drive is up to speed, turn on power to ALL computers simultaneously.

After you are up and running

DO NOT - reset, remove power from, or apply power to any computer or multiplexer while the Lt. Kernal Hard Drive is being accessed.

DO NOT - attempt to write to a file while it is being read from a different computer and visa-versa. Writing to the same file on more than one computer will be fatal to your LU. You can read the same file (or have it open for reading) from multiple computers.

Lt. Kernal Addendum

2-25-87

**Read the Installation Instructions in Section II
before attempting to operate your Lt. Kernal.**

Note on page 2-11 the word "not" in the 5th line should be changed to "now".

The Lt. Kernal DOS does not support the "FAST" modes of the 1571 drive. If using a 1571 with a 128 computer, you must use the serial cable included with the Lt. Kernal, or directory listings, programs, etc. will not load without being scrambled. With this cable, your 1571 will operate at the speed of a 1541.

In an effort to expedite your order for the Lt. Kernal, the FASTCOPY module is not included in the DOS and the ICQUB module supports only the C-64 mode at this time. Both of these updates will be sent to you as soon as they are available.

**Notice: In order to receive your SYSGEN disk and
updates, you must fill out and return both the Fiscal
and Xetec registration cards.**

You may still do floppy-to-Lt. Kernal transfers (and vice versa) by using the program COPY—ALL.64L that resides on LU10, USER 0, compliments of Jim Butterfield. You may also do fast floppy to Lt. Kernal transfers by using an un-documented program called TXA that resides on LU 0, USER 0. The syntax is as follows:

TXA[filename]

TXA causes some or all files on the floppy disk #8 to be rapidly transferred to the currently logged LU (logical unit). Wild cards and don't-care characters are supported in the optional file name specifications. NOTE: RELATIVE files are not supported by TXA; use COPY—ALL.64L to transfer REL types.

The following is a list of the default CONFIG parameters:

1st MENU

- F1 Screen Colors = As Seen
- F2 Hard Drive Number = 8
- F3 Logical Unit = 0, User = 00
- F4 Auto Beep Flag = ON
- F5 Printer Codes = Device #4, Secondary Address = 2
- F6 Logical Unit Parameters (Physical Drive 0)

| LU # | Beg. Cyl | # of Cyls |
|------|----------|-----------|
| DOS | 0000 | 30 |
| 0 | 0030 | 200 |
| 1 | 0230 | 200 |
| 2 | 0430 | 166 |

2nd MENU

- F1 Auto-Load from Serial Bus = ON
- F2 Pattern Match Scratch Flag = Disabled
- F3 CPU Mode = 64
- F4 CPU Speed = 1 MHz

To change any of the above parameters, please refer to the CONFIG command, page 8-8 and Section IX.

A demo program called PXE is located on LU 0, USER 00, and may be run in the C-64 mode by simply typing PXE and then press the "RETURN" key. Ignore the message "HIT ANY KEY WITHIN 5 SECONDS" or it will take you to an un-documented editor of the demo program. ENJOY!

If you encounter any difficulties, contact our service department at (913) 827-0685 between the hours of 7:00 a.m. and 3:30 p.m. Central time.